

REMARKS

In response to the Office Action mailed February 9, 2005, Applicants amend their application and request reconsideration. In this Amendment non-elected claims 4-6 are cancelled and new claims 7-11 are added so that claims 1-3 and 7-11 are now pending.

The Examiner requested a more descriptive title for the patent application and a substitute title is supplied.

Although only claims 1 and 3 were examined as a result of a species election requirement and an election, claim 2 has been amended so that it pertains to the elected species. Further, claim 1 is now the sole pending independent claim and is, therefore, by definition a generic claim. Therefore, upon allowance of that claim, all of the claims now pending must be joined to the prosecution.

New claims 7 and 8 are supported by the description in the patent application with regard to Figure 1A. These claims describe the presence of a heat sink and the electrical contact between a chip electrode and the heat sink. In the embodiment of Figure 1A, the chip electrode is element 12 and the heat sink is element 10. New claim 9 is supported by the embodiments of Figures 10-13. Those figures show via holes 9 extending through the semiconductor substrate to provide electrical connections between the heat sink 10 and the first main electrodes for the pad connected to the first main electrodes. New claim 10 encompasses the embodiment illustrated in Figures 3-5 of the patent application. This claim describes the wrap-around pads that are connected to the first main electrodes and the control electrodes.

In this Amendment claim 1 is amended for clarity. Amended claim 1 points out that, as described with respect to the first embodiment of the invention, the low dielectric constant polymer film does not completely cover or obscure the second main electrodes. Thus, the chip electrode makes contact with and provides a ground potential to those second main electrodes where the polymer layer is missing. This arrangement is a common feature of nearly all of the embodiments described in the patent application.

Examined claim 1 was rejected as anticipated by Noguchi et al. (U.S. Patent 6,483,176, hereinafter Noguchi). This rejection is respectfully traversed.

Noguchi shows, in its Figures 1-4, to which the Examiner directed attention, a multiple layer interconnect structure. Many of the multiple layers are independent interconnect structures separated by insulating interlayer films. In every described embodiment, every electrode, be it a main electrode or a control electrode, is covered with the insulating interlayer film, for example the film 13 of Figure 1 of Noguchi. Unlike the structure described by amended claim 1, none of those three kinds of electrodes in Noguchi is left exposed nor contacted by a common chip

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electrode as in the invention. Because of this important difference in structure, Noguchi cannot anticipate claim 1 nor any other claim now pending.

The other examined claim, claim 3, was rejected as unpatentable over Noguchi in view of Zhao (U.S. Patent 6,071,809). This rejection is respectfully traversed.

Zhao was cited only with regard to semiconductor substrate materials, particularly silicon carbide and sapphire as described in claim 3. Zhao does not supply the part of claim 1 that is clearly missing from Noguchi so that no combination of Noguchi and Zhao can establish *prima facie* obviousness as to claim 3 nor as to any other claim now pending.

Upon reconsideration, the rejection applied to examined claims 1 and 3 should be withdrawn and amended claim 2 should be rejoined to the prosecution as pertaining to the alleged species that was elected. For the same reason, claims 7 and 8 should be made part of the prosecution. Upon allowance of generic claim 1, new claims 9-11 should likewise be joined to the prosecution pursuant to 37 CFR 1.141. The result should be the issuance of a Notice of Allowance as to all claims now pending.

Respectfully submitted,


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